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by
J.M.Buckley LL.D



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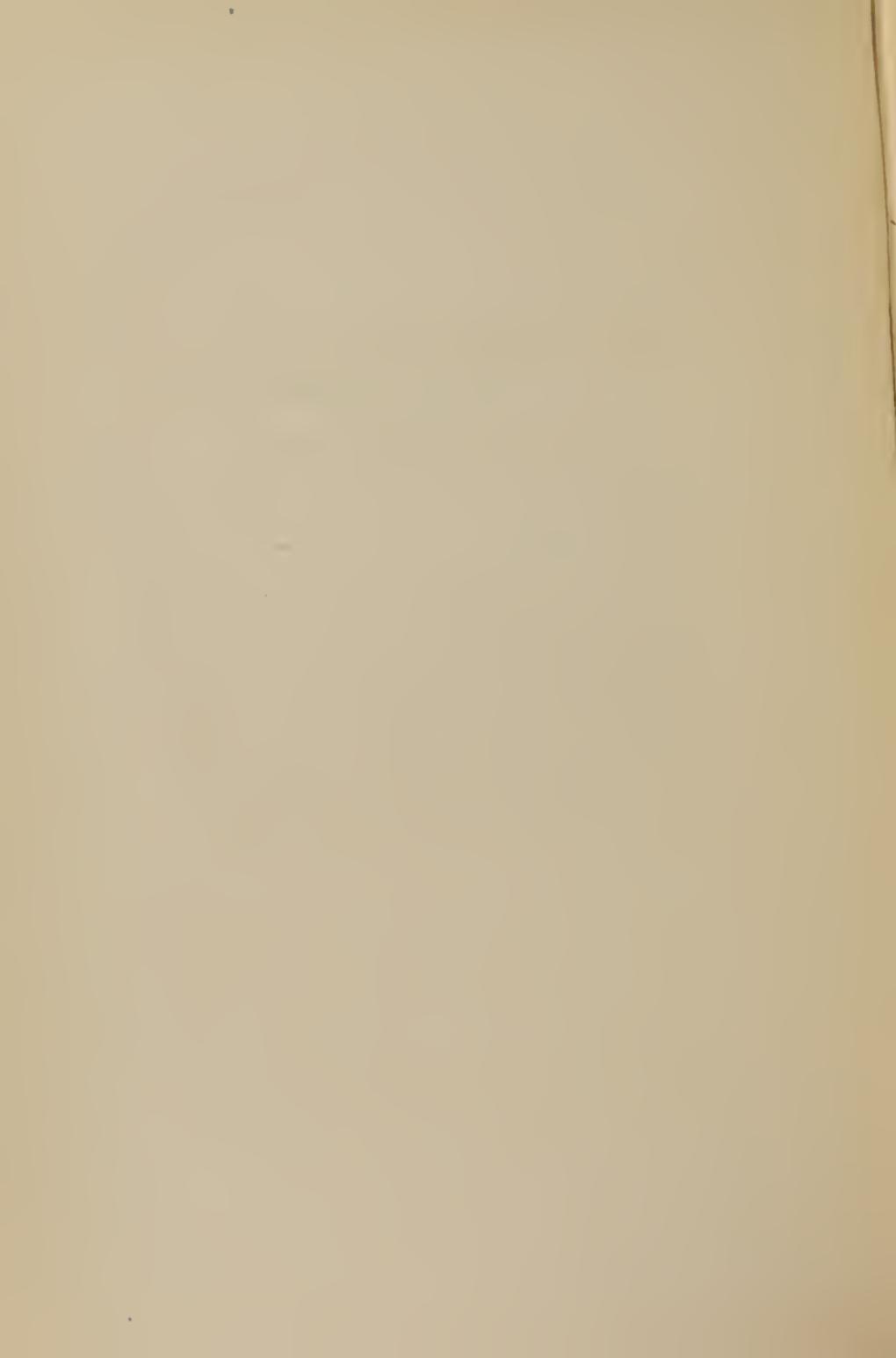
This Essay consists of articles which appeared originally in "The Christian Advocate" and some additional matter of importance. The principles underlying it are that pure air is life and the want of it death; that deep breathing is essential to vigorous health; and that chronic disease—except when the result of accident—is caused by neglecting, and by transgressing, little by little for a long time, and can only be cured by attending, and by obeying, the laws of health for a long time.



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A

Hereditary Consumptive's SUCCESSFUL BATTLE FOR LIFE.

I.

THE CASE.

IN *The Christian Advocate* of July 16, 1885, there was an editorial entitled "Fighting Consumption," which put so many persons in a way to regain their health that letters and thanks for it have been received at intervals ever since, as well as frequent calls for a reprint.

At the urgent and oft-repeated request of Chaplain McCabe, and many others, in the autumn of 1890 articles were announced for the year 1891 on "A Hereditary Consumptive's Successful Battle for Life." For reasons which would occur to the thought-

ful, I have found it difficult to begin the task. But one letter has decided me to delay no longer. It is from a father who has already lost one son by this fell scourge, and fears that the life of another is trembling in the balance.

The reader is entitled to be made acquainted with such facts as justify the belief in the correctness of the title given to this article; that the predisposition and disease existed, and that the latter is gone. By these he will be placed in a position to judge whether what the writer supposes to be the means of relief are entitled to that credit or not. He may then decide whether it is wise for him to employ them in his own struggle. This chapter must, therefore, be autobiographical.

Short work will be made with hereditary *predisposition*. I applied for a policy of life insurance about the year 1856. Among others this question was put: "Is your father living? If not, of what disease

and at what age did he die?" Answer, "He is dead; the cause of death was consumption; his age thirty-seven." "Had he brothers and sisters?" "One brother." "Is he dead or living?" "Dead." "At what age?" "Twenty-eight." "Of what disease?" "Consumption." "Of what disease did their mother die?" "Consumption, aged about thirty-five." "And their father?" "Of an acute lung disease, aged forty-three."

This swept out the whole family on that side except a younger brother, and left me, at the age of less than six years, the oldest person in the world in my direct line on the father's side. The policy was promptly refused.

Subsequently other applications were made and all declined but one, and the company that accepted that went out of business in less than four years;—probably as a result of taking improper risks.

This by no means proves that I am

a hereditary consumptive. First, because prior to the death of my grandmother and grandfather no indication of the disease appeared in the family history. Second, because my father married into a line in which no cases have occurred before or since. On the other hand, at the time of my birth my father was in failing health, soon broke down, and after struggling with the disease for several years died as stated.

Consumption is never hereditary in such a sense that every child, or even a majority of the children, of families where one line is consumptive must die of it. Nor is it hereditary in such a sense that all children where both lines were victims of it die of it, or that none of them can or do live to extreme age.

I have had the acquaintance of persons whose father and mother and from three to six brothers and sisters had died of the malady, and they alone survived to above

three-score and ten. But the facts given are sufficient to make a hereditary tendency reasonable and probable.

It is on that ground that life insurance companies refuse to issue life policies to applicants with such a record.

In childhood I was not destitute of physical strength, activity, and endurance in proportion to my weight. When a student at boarding-school, and less than fourteen years of age, I was attacked by acute bronchitis, and by it was brought so near to death that my relatives were sent for; I recovered slowly, and was subject for some time to shortness of breath and cough. Through that period it was customary for persons who had formerly known my father and uncle, both of whom were ministers, and had been in stations not far from the place, to say, "My poor boy, how much your cough reminds me of your dear father!" All this produced a feeling of desperation which led to excess in ex-

posure and in other respects, instead of to caution.

A short life and a careless one seemed to be predestinated, and for two or three years the supposed decree was promoted. At that time there were many dietetic and hygienic theories afloat, and when eighteen years of my life were passed I began to try them. Becoming a convert to the vegetarian theory, I went without meat for nearly three years, as I now suppose to my injury. For whatever may be said in favor of vegetarianism, it is incontestable that good meat is to be preferred to poor vegetables and pastry, heavy and hot bread, and neither my knowledge nor my opportunities admitted of giving vegetarianism the best test. Lest the reader may regard this as a reflection upon the *menu*, I have to state that in those days only about a dollar and three-quarters per week was charged for the food of the students, and meat was supplied to those

who would eat it. The accommodations were cheap at the price, and in view of the appetites of the students I do not wonder that the records of the institution show that it ran behind nearly every year.

In 1856 I removed from a most salubrious climate, unsurpassed in the Middle States, to Middletown, Conn., and began, in partnership with certain fellow-students with whom I am still intimately associated, the dangerous experiment of boarding myself. The average expense for each person per week was eighty cents. Of the hardships of that period, the irregularity, the uncertain condition of the cookery, a volume might be written, and its proper title would be *The Dyspeptic's Carnival*. Suffice it to say, that the cold, inconstant, and often severe winter climate of Connecticut, acting upon such a constitution as has been described, supported by such food and drink as we had, at hours daily decided anew to be convenient for the majority of the four,

soon produced symptoms of pulmonary and gastric disease. Then came the necessity of teaching school, to add to what was supplied with much self-denial from home.

There was great political excitement in those days, in which I shared, speaking frequently at night, and losing much sleep. During the winter's teaching public debates were held at points within ten miles of the academy where I taught and sometimes in the building. Before the first New England winter was over I could sympathize with the Pilgrims; for hectic fever, cough, shortness of breath, and emaciation came on apace. Physicians examined the lungs and shook their heads. When spring came it was impossible to go back to college. My fellow-students considered me "as good as dead." Accidentally I saw a letter from one of them to his parents predicting my demise before Commencement. Rambles without care or study through Delaware and New Jersey enabled

me to survive until fall. Having had sufficient of the "voluntary humility" of boarding one's self "not in any honor to the satisfying of the flesh," I took board in a private family, where with regular hours for meals and an abundance of good food there was an obvious improvement.

The next winter another school was to be taught. It was a second edition of the first as to declining health, and when spring opened, to the symptoms previously mentioned hemorrhages were added. A revival of religion arose in the community, and quickened my own spiritual life, which had been low, and, convinced that I had hardly a year to live, I determined to give that year to religious work among young men. The year passed away broken with attacks of illness, including hemorrhages while preaching, and many other things not necessary to detail, that, in the opinion of physicians, pointed unmistakably to death. Nevertheless, during a temporary restora-

tion I was received into the New Hampshire Conference, made pastor of a large church, the former pastor becoming presiding elder and living in the parsonage.

Those who have seen a young minister exhaust all his strength in preaching, remaining feeble and feverish until the middle of the week, then giving himself up to preparation for another crisis, can understand the situation. At last the then presiding elder, the Rev. Calvin Holman, now of Kansas, after consultation with my personal friends, made a solemn and tender call, assuring me that it was the universal opinion that the time was short, and recommending an immediate departure for home, to be within reach of those loving attentions which, though they cannot make death easy, rob it of some of its terrors.

These details are given to show those who are in the struggle that I can, not only feel *for*, but *with* them.

Was it pulmonary consumption? Some will say at once, "Certainly not; whoever has genuine consumption never recovers." Whether a layman or a physician, whoever says this is entirely behind the times. Pulmonary consumption, either fibrous or tubercular, often terminates spontaneously in recovery and often yields to hygienic methods. It is the opinion of one of the most celebrated physicians of Europe that for every two cases of death from consumption there is one case that is either indefinitely prolonged, the patient living to be old, or entirely recovering and dying of some different disease or of old age.

It may be asked how such a fact as this can be established. By two modes, the one probable, the other conclusive. The probable mode is where the patient had all the external symptoms of disease, an examination of the lungs by competent specialists gave results which agreed with each other and with the external symptoms,

and such patient subsequently recovered, and lived for many years without a return of those symptoms. This is my case. The possibility of error in the diagnosis of course remains, but where all these conditions exist it is reduced to a minimum. Such cases are numerous. Stephen M. Merrill and Charles H. Fowler, now Bishops of the Methodist Episcopal Church; Dr. Luke Hitchcock, and a multitude of well-known men have passed through such experiences.

Conclusive demonstration is found in *post-mortem* examinations. The late Professor Austin Flint, of this city, author of the *Practice of Medicine*, was also the author of a Clinical Report on Consumption, and describes sixty-two cases in which an arrest of the disease took place; in seven of these cases it occurred without any special medical or hygienic treatment, and in four of the seven he declares that the recovery was complete.

Professor J. Hughes Bennett, of the Royal Infirmary at Edinburgh, says in a lecture: "Up to a recent period the general opinion has been, consumption always marches on to a fatal termination, and that the cases of those known to be restored were so few as to be merely an exception to the general rule." . . . "Morbid anatomy has now, I think, demonstrated that on the contrary tubercles in the early stage degenerate and become abortive with extreme frequency in the proportion of one half to one third of all the incurables who die over forty." Both the *Edinburgh Journal of Medical Science* and the *London Lancet* indorse this conclusion. It is equivalent to saying that from one third to one half of all the incurables of Scotland, who die over forty, have had incipient consumption and got well of it. To meet those who would say that these were cases where there were only a few isolated tubercles, Professor Bennett declares that

"Laennec, Andral, Cruveilhier, Kingston, Pressat, Boudet, and many others have published cases where all the functional symptoms of the disease, even in its most advanced state, were present, and yet the individual lived many years and ultimately died of some other disorder, and on dissection cicatrices and concretions have been found in the lungs." While delivering that lecture Professor Bennett showed the lungs of a man who died suddenly of congestion of the brain, aged fifty years. At twenty-two he had been given up to die of pulmonary consumption, got well, lived nearly thirty years, and his lungs exhibited most indubitable marks of the progress and termination of the disease.

My *post-mortem* has not yet been performed, but many physicians to whom my recovery has been narrated have made an examination, and find evidence that there had been an extensive disease of the right side of the upper part of the right

lung. My intimate friends among fellow-students and room-mates had no expectation that I should live. The Rev. Dr. Simmons, now of Danbury, Conn., who allowed me for a time to sit at table in his room in the university, some years ago introduced me to an audience on a festive occasion, saying it gave him pleasure to introduce the speaker. "I once boarded him at eighty cents a week. He then exhibited consumptive symptoms, and I did not suppose he would live six months, but here he is."

It may relieve the somber character of this article to say that the speaker began his remarks by saying: "What young man would not exhibit consumptive symptoms who was fed at an expense of only eighty cents a week?"

The day after the Rev. Mr. Holman made his supposed *ante-mortem* but most brotherly call a battle for life began. Like the Revolutionary War, it had its successes

and defeats, its dreary winters and varying fortunes in its summers, but like that, under the protection and help of a kind Providence and good advice, it *expelled the enemy.*

II.

THE VICTORY.

THE story here told is not narrated for my own pleasure or honor, but as a warning and an encouragement. There is no pleasure in remembering that years of precious time were wasted—years that might have been saved—years in which what can never be obtained might have been easily acquired.

The encouragement is in showing how kind Nature may be when one becomes willing to obey her laws; or to speak of it from a strictly religious point of view, how the providence of God works through Nature, without miracle, to the restoration of those who have been indifferent to his laws.

From 1857 to 1859 I was more or less under the care of physicians for acute affections of the lungs, and bronchial organs,

and dyspepsia. From early autumn to late spring I passed apparently from one cold to another, with an interval seldom longer than a week between the successive attacks. During this period a morbid fear of taking cold arose, and no valetudinarian of eighty years of age ever wore more coats, caps, scarfs, fur capes and collars, and overshoes. Perhaps in the severe climate of New Hampshire some good resulted from this, but the practice was extreme. On warm winter days perspiration was induced, and being caught occasionally without the fur collar, or allowing the air to strike the neck, was followed by as bad a cold as might have been taken with complete exposure.

This fear led me to remain in the house in winter in all but the pleasantest weather, and thus diminished appetite and strength. As meetings and funerals had to be attended and some pastoral calls made, nearly every time I emerged from the house it was with

an expectation, rarely disappointed, that a cold would be taken.

In the late spring there was generally a change for the better, but in 1860 the usual improvement did not take place. During the preceding period whatever had been recommended by respectable sources was tried, especially the malt liquor treatment then popular. London or Dublin porter was prescribed, which was taken at the rate of about a quart a day, continuing, though without improvement, until by accidentally omitting the dose the discovery was made that the system sunk greatly below its normal level. Fearing that a disease worse than the one for which it was taken would be set up, the porter was stopped. Another physician urged the use of rye whisky in set doses. This seemed to produce a good effect for a little time, but a tendency to an increase was manifest, and for the same reason as in the case of porter it was discontinued. The current patent and propri-

etary medicines were tried. Courses of treatment by both allopathic and homeopathic physicians were successively undergone. I would not intimate that no benefit was derived, but the disease appeared to progress steadily, with intervals of temporary apparent improvement. At last suggestions were made that a sea voyage or removal to the South was essential, which was understood to imply that the case was considered hopeless if I remained there.

On the 11th of June, returning from a visit to Washington, a severe hemorrhage, of which there had been several before, in Baltimore, followed by others, greatly reduced strength, and for several weeks after that only one Sabbath service could be performed. About the first of July the Rev. Calvin Holman made his call. On his departure I felt much as a prisoner who had hoped for reprieve might feel when the sheriff called to notify him of the hour of execution.

Brooding over the gloomy prospect, I thought, What is this terrible disease, consumption, of which one quarter of the people of this country die? Did the Indians ever have it? Is it common among soldiers, sailors, hunters, trappers, farmers, and gardeners? Forthwith I pulled down books and pamphlets, called upon a neighboring physician, consulted some of his books, and came to the conclusion that consumption is a kind of premature old age, a defect of nutrition which medicine cannot cure.

Taking up a medical work, I read these words: "Medicine cures no chronic disease of the general system; it may mitigate, sometimes assist natural processes, give relief from pain, but Nature cures, and food, exercise, diet, light, with rest, and peace of mind, do the work."

Then was formed the resolution to make every thing for awhile subordinate to living, and to die—if death should be the doom—in the open air.

No sooner was this resolution formed than its apparent absurdity caused a fit of depression. "Where can you go? What can you do? Resign your ministry and go to farming? You have not strength enough to milk a cow. Go to some sanitarium or watering-place? People die of consumption every-where. How could you get there, or support yourself there?" Walking round the study and thinking of the issues, half inclined to give up, mechanically another book was taken down from the shelf, a book possessed but till then unread, *Farvis's Physiology*, and turning over the pages at random the eye fell upon page 281, ¶ 678:

678. "However small may be the person's strength, that must be the measure of the exertion. However low the power, that must be the starting-point. Any other measurement, any other point of beginning, would be fatal to the hopes of gaining strength by the effort."

679. "A young man in Waltham, Mass., was very feeble, but not sick. He was advised by his physician to set out upon a journey on foot, but was

cautioned not to walk at any time until exhausted. He began his journey in the morning, and with short exertions and frequent rest he walked three miles on the first day and was fatigued. The next morning, to his surprise, he felt more vigor and courage to go on, and started again. He walked on that day, in the same manner, and accomplished four miles before night. He thus gained strength and energy day by day, adding little to little, and finally walked to Niagara Falls—more than five hundred miles. After viewing these to his satisfaction, he returned in a much shorter time than he went; but he did not return by a direct course. He visited the interesting places in the neighborhood of his homeward route, and at the end of his sixth week he reached home, having walked more than a thousand miles in forty-two days. On the last day he had walked forty miles, and was so little fatigued with the day's journey that in the evening he felt sufficient energy to visit his young friends in the neighborhood."

The next morning was dull and cloudy. Looking out of the window, came the misgiving: "It will not do to start to-day; you will certainly take cold!" This was antagonized by: "He that observeth the wind shall not sow; and he that regardeth the clouds shall not reap."

After breakfast a start was made. The day proved better than was anticipated. There was no difficulty in walking to the outskirts of the city, but as soon as the sandy roads and occasional hills were reached it was necessary to rest. The details of this journey are not important, except to say in about seven hours I made eight miles—the walking time was probably not more than three hours—the residue was consumed in rests.

This was encouraging, but Dr. Jarvis's rule in paragraph 678 had been violated. After remaining weak and languid two days at the residence of a former parishioner, I returned by train, and the next day was content with making about four miles. This continued for about three weeks. The official board of the church kindly allowed the omission of the second service for four Sabbaths. A neighbor, taking an interest in me, took his horse and carriage and drove to the White Mountains, a distance of one

hundred miles each way, in six days, thus keeping me in the open air the whole time and admitting of some exercise in climbing. The time was mostly spent in arguing with him as to his duty to join the church, and on the following Sunday when he took his place in the congregation he had to hear all the arguments previously advanced thrown into the form of a sermon. He said afterward "it was rather hard upon him to bombard him during the entire week, and then rehash the matter for the Lord's day."

By continuing upon the principle laid down there was a slight improvement.

On September 23 I preached for the Rev. Dr. Ridgaway, then pastor of the Chestnut Street Church, in Portland, Me., and there had an interview of much importance to me with the late Dr. Eliphilet Clark, who made a thorough examination, and gave certain definite instructions which were of much assistance, fully

confirming the course entered upon, pointing out proper methods of breathing and speaking, and furnishing hints concerning diet, which effectually co-operated with the plan.

Then came a winter so cold and stormy that many vigorous persons succumbed and died of different diseases of the respiratory organs. During that time the open-air system was maintained, sermons being prepared while walking or riding. But the process of recovery was greatly facilitated by the habitual use of an inhaling tube, of which *The Christian Advocate* gave a description at the time of the death of Dr. J. M. Howe; the kind of tube referred to by Dr. Mark Trafton in an article on the "Conditions of Longevity."

To this instrument I owe more than to all medicine, or to out-door exercise, and were I compelled to choose between the use of the tube for an hour and a half a

day, and all other exercises and medicines without it, for the removal of pulmonary disease, experience and observation would lead me to prefer the tube.

Whatever may be the cause of consumption, it is always accompanied by a reduction of the breathing capacity, and it has been demonstrated that a reduction of that capacity below a certain point will produce it. The tube is so constructed as to admit the air without difficulty, but to obstruct its expiration. It is not a blowing, but a breathing machine, designed to restore and maintain the habit of full inspiration and expiration of air. By its use all the muscles naturally employed in respiration are brought into play. It is impossible to use it without detaining the air in the lungs a considerable time, and breathing deeply. Every cell, whether diminished in its capacity by the presence of tubercle or not, is thrown open, and the blood arterialized.

To the use of the tube, the amount of time spent in walking and riding in the open air, and the observance of certain additional hygienic methods, together with the determination not to die, I owe my recovery.

The average amount of time spent out-of-doors was four hours per day, the tube being used three times, half an hour each, in the open air when the weather admitted; otherwise in a well-ventilated room. In the summer a pedestrian tour of from three to six weeks, averaging from fifteen to twenty miles per day, with occasional longer walks, was taken for several years.

In 1861 no marked improvement was seen. In 1862 progress became more visible; and in 1863, while in Europe climbing the Alps, the last vestige of the disease, *as was supposed*, disappeared. As a result of continued exercise, shortness of breath gave place to a rather more than average lung capacity in actual use.

Attention to health and health rules considerably diminished; and in 1868, at the close of a long pedestrian tour, a violent cold was taken by undue exposure, which brought on an attack that in the course of six weeks became alarming. A physician was consulted, whose prescriptions were faithfully followed without material improvement. At the end of two months, assuming that what had wrought a cure before might do it again, the regular use of the tube and systematic exercise in the open air were undertaken, and in about five weeks the portentous symptoms disappeared, and from then till now not one indication of a tendency to pulmonary disease has been seen.

During this long period I have made the acquaintance of many consumptives, to whom this history has been detailed, and literally hundreds have been induced to use the inhaling tube, and to begin a fight for life. Of these, all who

faithfully complied with the suggestions have either recovered, or their lives have been prolonged beyond the expectation of their friends.

III.

A PLAN OF BATTLE.

I PURPOSE to outline a scheme of battling against consumption. The reader must not fancy that I underestimate the importance of physicians, or recommend the consumptive to reject their counsels or refuse their prescriptions. My suggestions have been submitted to three of the best known and most eminent physicians, not only in the United States, but in the world, two of them residing here and the other abroad, two practitioners of the regular or allopathic school, the third, one of the most distinguished of the homeopathic fraternity. More than that, if it were desirable, passages explicitly recommending the principles involved could be quoted from standard medical works of every school.

I have no doubt that most persons following out this scheme could either trans-

form their consumption into a chronic state, which will not materially shorten life, or fight it off entirely without the aid of a physician. And I have little confidence in any thing any physician could recommend who disregards these principles, and does not enforce something analogous to them. But painful symptoms and intercurrent conditions can be greatly relieved by judicious medical treatment. The spirits of the patient can be kept up thereby, and the sense of responsibility, which would be depressing if he attempted the exclusive management of his case, transferred to the medical adviser.

As for the bacilli, which it is now claimed are found wherever consumption exists, it is not yet absolutely certain whether they cause consumption, or accompany it, or are its consequences. Assuming that they are the cause, after they have entered the system some constitutions succumb to them, and others do not. Those that do

not are such as are naturally strong enough to resist their inroads, or by methods of life are able to war a good warfare against them; so that, so far as hygienic measures are concerned, it makes practically little difference whether the theory of the bacillus is true or not.

Consumptives may be divided into classes: those considered to be far gone; those who are still about and comparatively active, but plainly declining in health, emaciated, with capricious appetites, shortness of breath, hectic fever; and those who have been recently attacked, have always enjoyed good health, and are not materially diseased at the present time, but have been told by their physicians or suspect that their lungs are affected. Some of these may have had hemorrhages, some not; some may be better than they were a few months ago, or worse.

Of course, of the first class many are so far gone that the final breaking up of

their systems has begun; yet it is possible for some of these to recover in whole or in part, and live for many years. We will begin with them. What shall be done?

First, they must live in a large, airy, and sunny room, which should be well ventilated day and night. If they are not able to sit up, the bed should be moved within the range of the sunlight; the temperature of the room must not be high—not above sixty-five degrees. They should not remain in bed more than eight or nine hours at a time; if possible, must rise and sit in an easy chair, wheeled into another room. If the weather is fine, without wind, they should be carried out (if they cannot walk), and placed upon the piazza for a little while, morning and afternoon.

Second, an inhaling tube should be procured, and its use at once begun. There are several sorts on the market; some made of glass, that can be obtained for a

few cents, which are as good as any other ; some of silver, and some of rubber. I have no interest in any of them, direct or indirect, but the tube which I used, which has been entirely satisfactory, is known as the Howe Tube, from the late Dr. Howe, of whose recovery by means of it an account is elsewhere given. There is no mystery about the tube. Any one who can make a whistle can make the instrument. Let it be a hollow tube three or four inches long, with a hole at each end about an eighth of an inch in diameter ; in the center the diameter of the hollow should be about twice that width ; bore a hole in the side about as large in circumference as the lead of a common pencil, one third of the way from the end. A quarter of an inch beyond that hole toward the end of the tube which is to be placed in the mouth run a little bar across from side to side ; between the crossbar and the end put any thing of the shape of

a tack the head of which will be sufficiently large to stop up the hole, but not large enough to more than half fill the tube in the center, where the tube is larger than at the end; or put in a ball the shape of a pea, which will have the same effect. Now, when the person puts the proper end of the tube in his mouth and inhales, he draws the valve back as far as the crossbar; this allows the air to flow in easily; in exhaling he blows against the ball, or whatever he has for the purpose, which closes up the end of the tube, and the only place for the air to escape is the little hole in the side.

It is very important that the tube be used *correctly*. The person who uses it should sit, stand, or lie in a position to give the lungs and abdominal muscles ample opportunity to work, and the atmosphere should be pure; the time should be about an hour before each meal.

"In drawing the air through the tube do not attempt to fill the lungs to their utmost

capacity, but moderately full; so in blowing out the air through the tube, do not exhaust all the air. Be moderate." When the tube is first used let it be only two minutes each time. If tired rest, and then go on, so as to make two minutes' use of the tube. This is the rule for the very sick, weak person. The next day it may be increased to three minutes and so on, increasing a minute each time, until thirty minutes are reached, making in all an hour and a half a day. Then decrease. When fifteen minutes at each exercise are taken, if the symptoms are all favorable, it may be increased two minutes each time, instead of one; but when thirty minutes are reached, it may be decreased until it is only five minutes three times. After that rise again as before, and continue the use of the instrument thirty minutes three times a day until the last symptom of the disease is gone, which may require some years.

Should there be much inflammation

about the chest, accompanied with pain or any other disagreeable symptoms, discontinue the tube for a day or two while the physician reduces these symptoms. But as soon as they disappear let it be begun again. Should a hemorrhage occur, let the tube be laid aside for a day or two, and medicinal means employed. In like manner, if there are night sweats or fever, medicinal treatment to relieve these is necessary.

If possible, the patient should spend his hours out of bed in another room from that in which he sleeps, and in the inclement seasons if a wood fire and an open grate can be used in both these rooms it will be a great advantage.

No *gas* should be burned in the sleeping-room of a consumptive. It is more pernicious than it would be to have two or three persons occupying the same room, both by the products of combustion and the consumption of oxygen. The electric

light in this particular is unobjectionable. No lamps of any kind should be used. If a light must be had let it be a sperm candle set in the fire-place when there is no fire, or placed not far from the window, and as far as possible from the sick man.

With regard to exercise in the open-air: If a person has been taking it up to the time that he reads these words, he knows the present amount of his strength. If he has not been taking it for a long time, he must begin very gradually. I would suggest walking, beginning about an hour before the time for using the tube, in the morning after breakfast, about five minutes, and the same in the afternoon before sunset, and, returning, rest, without exposure to a draught, until the time comes for the tube, then increase the next day to six minutes, and thus continue till each walk is half an hour or more in length, always allowing time for an hour's rest before using the tube. Consumptives cannot

measure their own strength, and are very liable in attempting any exercise to overdo. Beware of this. Decide the time beforehand. Walk half the time away from home, and the other half toward it. The good effects of exercise, both in riding and walking, have often been destroyed by going so far that getting home has produced exhaustion.

By this means I induced a young lady in Brooklyn—who had not walked a step for four months, and had lived entirely in her room waiting for death, whose friends had no hope of her recovery, and whose physician had even ceased his visits because of the hopelessness of her case—to begin when she could walk only half a block. In three months she was walking five miles a day, and lived for seven or eight years afterward, combining with walking the use of the tube, which was employed a fortnight before her first walk and a week before she could leave her

room. Riding in a carriage and sitting therein quietly in some sunny spot in winter or in the shade in summer where the view is pleasing will afford a pleasurable stimulus to those unable to walk.

Much has been said about the *food* consumptives should eat. Some have been fed upon carbonaceous food almost exclusively, with plenty of fats, cream, and butter. Others upon lean meat with *all* the fat removed, and no vegetables allowed. Others have been forbidden the use of meat. Some have fed their patients upon milk almost exclusively, goat's milk, ass's, cow's, or mare's milk. The Salisbury treatment is meat, with large quantities of hot water. Some have forbidden, and others have recommended, fish. Dr. Jackson, of the Sanitarium at Danville, does not believe in either meat or milk, and recommends a farinaceous and fruit diet as the best that consumptives can possibly use. He alleges as an objection against the use

of flesh by persons who actually have the disease, that the meat they eat may be unhealthy, and they not know it, and that meat excites the nervous system too much. He says if he had to feed them upon meat he would give them the flesh of wild animals, or if he used any of the domestic animals he should choose mutton before all others. If he could not get this he would give fresh fish, excluding shell-fish. He believes that simple diet composed of preparations of grains and fruits eaten plentifully is better than a free use of flesh meats with alcoholic liquors.

I tried all sorts of diet and watched the effects, and believe that a plain *mixed* diet, consisting of fresh vegetables and a moderate amount of meat, with good Graham bread, ripe fruits and cooked fruits in moderation, taking great pains not to overload the stomach at any one time, using cream and butter, and avoiding pastry and all puddings, except the simplest, particu-

larly avoiding sauces and other things calculated to produce fermentation, is the best. Four meals per day, in some cases, are better than three.

Cod-liver oil was once supposed to have medicinal value. It is simply food, and a preparation of it that agrees with a person does about the same for him that cream would do, and some persons have derived immense benefit from it. A consumptive, as has been well said, should eat what he relishes best, provided always the substance chosen has sufficient nutrition in it to meet the wants of the system, and is at the same time free from constituents which tend to exhaust the vital force.

To encourage persons in this low state I will give a case. In Stamford, Conn., there was a man dying of consumption. He had been shut up in his house from August to February, and was finally reduced to his bed, and his physician, the most noted allopathic physician that till then had

practiced medicine in that town, remarked to me, "There is no hope for him ; he is a gone case." I presented him with the tube, giving him no other instructions than are here printed. He recovered, afterward became a coachman for William Hoyt, the present treasurer of the Board of Trustees of Wesleyan University, filling the said position of coachman for five or six years, and did not die for a number of years after that service, the final cause of his death being dropsy. He was considerably above fifty years of age at the time he began to use the tube, and had been in consumption for a year. As the *patent medicine* certificates say, "This is only one of scores of cases" that might be given ; but the difference between the two is that *this* was simply the breathing of pure air in a proper way, and other suitable exercise.

IV.

CAUTIONS AND CONFIRMATIONS.

THE person referred to in the close of the last chapter at first declined to go out of doors for fear of taking cold. Note two things: consumptives seldom take cold. They think they do because of the ordinary changes in the course of their disease. If they do it is fully as likely to help them in their struggle for health as to harm them. Should any physician who has never had his attention directed to this subject be inclined to say that this is nonsense, I quote for his benefit a passage from Austin Flint's *Practice of Medicine*:

I am well satisfied that here is the foundation for the successful management of pulmonary tuberculosis. I would rank exercise and out-of-door life far above any known remedies for the cure of disease. Properly clothed, the patient, if he be strong enough to go out of doors, should scarcely be kept within doors by the state of the weather, but should resolutely keep up habits of out-door life,

despite the ordinary changes of temperature and wind, remaining in the house only on inclement days. It is to be borne in mind that the susceptibility to attacks of bronchitis is less the more the exposure, and also that *an attack of bronchitis does not usually exert any unfavorable influence on the tuberculous disease.* Many patients are deterred from going out of doors when the weather seems unfavorable by needless apprehension of taking cold. The danger from this source is certainly less than from a deficiency of out-door life.

When Dr. John M. Howe had been reduced to the lowest state, and sent by Dr. Valentine Mott on a sea voyage to Europe in a sailing vessel, he journeyed to the north of England and to Scotland, consulting prominent physicians, growing worse, then to the south, then to the climate of France, where he sank rapidly. Finally, as he was about starting for home, he happened to meet Dr. Ramadge, the inventor of the inhaling tube, at that time superintendent of a celebrated lung infirmary in London. After having received the tube and directions, when about to sail

for New York in October he consulted Dr. Ramadge concerning climate, and said: "Ours is a dreadful climate; it snows and hails and blows. I shall have to shut myself in the house all winter." "By no means," he replied; "go out every day; choose the best time in the day, and go out every day."

As to taking cold, Dr. Ramadge was led to invent the tube by observing the effects upon certain patients who were exposed, took cold, had severe attacks of bronchial catarrh, and to his astonishment recovered from the pulmonary disease. This is the history: One winter, becoming discouraged with unsuccessful efforts in treating his patients, he advised them to leave the warm apartments in which they were during the inclement months of the year, being assured that if they continued with him they would sink on his hands, and they went their way, some of them to poor and even exposed habitations. Sub-

sequently, much to his surprise, he found some of these persons in the enjoyment of good health, and by investigation he ascertained that their exposure had been the means of their restoration. The bronchial catarrh, while it lasted, had reduced the size of the windpipe; this compelled deep breathing, and the deep breathing brought about the recovery. Before Dr. Ramadge invented the tube he used a steel spring to be worn on the neck so as to make pressure upon the trachea immediately above the sternum, and be worn at intervals. The details are given in his large work. Finally he devised the tube.

It should be hardly necessary to say that a person struggling for life with this disease should never go away from home in the evening. Especially should he stay away from church, prayer-meeting, lectures, concerts, parties, and all other crowded assemblies. It might be proper when in an excellent condition to attend church

in the morning, but not until well along toward recovery. I did because I was a minister and had to preach or resign my position, but I spent the greater part of the rest of Sunday in the open air. Unable to walk and bear the labor of preaching, I accepted the invitation of a physician to ride with him and remain in his carriage while he was visiting his patients.

Rooms where prayer-meetings are held, like churches in the winter season, are a great strain upon the healthy, especially at night, when the gas is lighted. Most persons appear to care very little about pure air in churches. They are breathing in exhausted receivers; they sleep and abuse the minister because they are stupefied. Sextons know that more ventilation means more putting in of coal, and as lowering the windows often induces a very serious danger to those who sit near them, causing them to urge the sexton to close them, it comes to pass that the air in

churches, to say nothing of admixtures of coal-gas and smoke, is most deleterious for persons with weak lungs. In the evening, all excitement should be avoided.

I have taken the worst possible case as the basis, and need say but little additional concerning others. A sedentary in-door occupation, in which consumption has been brought on, perhaps, by the confinement and want of pure air, is opposed to recovery. It must be given up. If the hours could be shortened, and time found for the use of the tube an hour and a half a day in pure air, with some additional exercise, horseback or walking, in many cases recovery might take place. I have known several school teachers, even in rooms where from forty to sixty children were consuming the air by their inhalations, and polluting it by their various exhalations, to recover without medicine by this simple exercise, and by removing their boarding-place so as to make it necessary to walk for an half hour

each way in going to and from school. One who refused to do it, and relied on using some medicated vapor, confessed his fault when it was too late in these pregnant words: "What a miserable fool I was to undertake to swindle nature."

Out-door occupations can and should be continued in moderation. I fancy that I hear some person say: "O, I have to get my living. Your directions all imply money, and of that I have but little." You cannot get your living long if you have consumption. If you could get some kind of light work that would only give you half a living for a few months, but keep you in the open air, it would be better. I advised a young man to try peddling. At the close of two days he had made thirty-six calls and netted but seventy-five cents. He continued, earned his living, and recovered his health.

A young man in Boston within my knowledge, an alumnus of Harvard, who

was in consumption, acting under the advice of Dr. Bowditch, took a position as horse-car conductor for the same purpose and with the same result.

For those who are not thus prostrate the great rule is the faithful use of the tube and the gradual increase of exercise. Many will not use it; it seems too simple. If it were only the inhalation of tar, iodine, chlorine, hemlock, turpentine, "compound oxygen," "sulphureted hydrogen and carbonic acid," or something else, they would do it; but that inhaling the air could produce such effects seems incredible. "If the prophet had bid thee do some great thing wouldest thou not have done it? How much rather then when he said to thee," Breathe God's pure air and be well.

Some will laugh at the user of the tube, others try to reason him out of it. Some physicians will countenance nothing they do not invent. Some will

say that the nostrils are the organs with which to breathe. This is true, but in consumption the natural balance has been broken—the patient breathes but little and rapidly. To attempt to take the exercise by compressing the nostrils or holding back the breath, would require that the mind should be concentrated on each successive breath. The mere act of holding the tube fast in the mouth soon becomes a habit and relieves from such an irksome necessity.

I warn all who use the tube that the exercise and expansion of their lungs may cause them to be sorcer for a time than they have been before. In my case there was a great deal of local irritation for months, which occasioned alarm. Also, in tuberculous consumption there will be a breaking down of the tubercles, which will produce much more coughing for a short time. Moreover, if the person had consumption there will be a return of the symptoms at

intervals. The tube is to be used, however, persistently and regularly. There are many persons who, independent of their physical state, have not the moral courage to overcome consumption, and if that cannot be aroused they will do nothing but *die*.

Some coughs are purely nervous, others are merely habitual. One man, the cause of whose cough disappeared, informed me in good faith that he felt lonely without it, and that he found himself coughing from habit at intervals for nearly a year. There are stomach, liver complaint, and bronchial coughs. A cough is an automatic, unintelligent effort of nature to remove an obstruction. The tickling in the throat which leads persons to cough is not the obstruction, nor does it indicate its place; it is simply recognized there. Any person who has a chronic disease accompanied by a cough should subject the cough to discipline. Dr. Brown-Sequard

has given various rules for checking cough without medicine by pressing certain nerves in the roof of the mouth and at the side of the nose. A very simple rule is this; as the spasm comes on take a deep breath against it by an effort of the will, and then allow the air to escape slowly. This will not forever prevent a cough if there is any cause for it; but instead of coughing twenty-five or thirty times, two thirds of those pernicious spasms will be prevented, and when the obstruction is sufficiently large or has become loosened one effort will bring the foreign substance away. When I was struggling with consumption I prevented coughing in this way, sometimes for half an hour at a time. When a cough is loose it does not rack the system, and brings away what is in the bronchial tubes. This recommendation relates to a *tight* cough, which should always be suppressed if possible.

The “expectorants,” so called, generally

damage the stomach, and except when necessary to sleep should not be taken, and then as little as possible. In nineteen cases out of twenty the cough entirely disappears. In eighteen months after I began the use of the tube it took its departure.

Many consumptives are subject to hemorrhages. The tube, if used *violently*, as though it were a *blowing* machine instead of an instrument to induce proper breathing, might bring on such an attack. I will, however, state an important fact not generally known to sufferers, namely, that if a person has consumption his chance for recovery is often better if he has hemorrhages than it would be if he did not. This is the opinion of many of the most eminent specialists. There are different sorts; a violent and excessive hemorrhage may be, though it seldom is, immediately fatal. Do not be frightened. My first hemorrhage was at a considerable distance

from home. I was terrified and felt weak almost to faintness, but as I could not get any help I began to reason: "You have not lost blood enough to kill you, go to the next house." By the time I got there I found it possible to go a little farther, and reached home. Many consumptives are so alarmed by the hemorrhages they have had and those they fear that they do nothing and die. It is only necessary to remain quiet a day or two, and then resume exercise cautiously. *There is no tendency in a proper use of the tube, nor in unhurried regular and moderate exercise, to induce hemorrhage.*

Some persons can generally tell when they are going to have a hemorrhage some hours or a day in advance; if, when they have those feelings, they will take a dose of salts or something equivalent, in four cases out of five they will not have it. A family physician who knows the patient's constitution is the best adviser on that

point. I never waited more than twenty-four hours, or at the utmost thirty-six, before beginning again with *moderate* exercise.

The reader may suppose that the writer is in some way heated upon this subject, and thinks that the tube means more than it does.

I have permission to print the following letter. In 1877 I was in New Orleans and met General Cyrus Bussey, now occupying a high administrative position in the Department of the Interior. Perceiving that he seemed very ill, and suspecting that the fatal seeds of consumption had been planted in him, I said to him: "General, you are not well."

"By no means."

"If I were to tell you of a simple exercise that will in six months or a year make you as strong as you ever were, would you have confidence enough in me to try it faithfully for that length of time?"

"Yes, if it seemed reasonable," said he.

I then recommended the tube and the exercise, and wrote to the general asking him if he would object, for the sake of encouraging the thousands who in a very little while will be beyond hope, to state his experience with the tube and his observations of it since. And this is the letter he sends:

WASHINGTON, December 19, 1891.

Dr. J. M. Buckley: In 1877 you visited New Orleans, where I then resided, and recommended a breathing-tube for disease of lungs. I have used one ever since, and regard it as an invaluable remedy. By its use my lungs became wonderfully developed and perfectly sound.

During the past thirteen years I have recommended the tube to many persons with consumption. I can recall many who had every symptom—cough, expectoration, hectic fever, night sweats—who are to-day in perfect health, the result of the use of the tube.

If every young person predisposed to lung disease would use a tube faithfully every day, consumption would almost cease. Where the use of the tube fails, the party either neglects or is too lazy to use it properly. I strongly recommend the use of the

tube, whether suffering from lung disease or not, to those who desire to attain to and enjoy a vigorous old age. Very truly yours,

CYRUS BUSSEY.

Of all forms of out-door exercise, the best for the consumptive is *horseback riding*. Begin with an animal that is a good walker, and does not require special strength of the arms to manage it, and exchange it as soon as the experience and development are sufficient. Dr. Henry M. Storrs, now one of the most robust men in this country, when a victim of hemorrhages and all the symptoms of pulmonary disease, went to Kentucky, bought a horse, and rode it back to this part of the country and sold it. Dr. Cutler, rector of St. Ann's Protestant Episcopal Church for many years in Brooklyn, shook off half a dozen incipient attacks by riding on horseback from the South up and down the coast, from Texas to Maine. (Horseback riding occasionally proves unfavorable by inducing some other maladies.) *Walking*,

however, is the most accessible. One of the greatest physicians justly says: "I know of nothing in the whole round of physical exercise so good as habitual, regular, and vigorous walking. What horseback exercise is to a person actually suffering from incipient or advanced consumption, pedestrian exercise is to one who having it not is yet predisposed to it."

I append a letter from the late Dr. Joseph Parrish, himself a physician of much distinction, which confirms by reference to himself and his father, who for twice an average lifetime was one of the most eminent physicians in this country, the views herein set forth:

BURLINGTON, N. J., November 29, 1890.

My Dear Dr. Buckley.: Your editorial in this week's *Advocate*, entitled "Consumption," strikes me as very timely, and in connection with it I am inclined to give you a bit of personal and family history.

You probably knew of the case of my father, the late Dr. Joseph Parrish, of Philadelphia. When a beginner in his profession he had incipient signs of pulmonary consumption; he lived sixty years, and

in his last illness defined the region of his lungs which he desired should be examined after his death, and said that there would be found in that particular spot a distinct cicatrix, illustrative of a healed consumption lesion which had threatened him in early life. He took but little medicine, but practiced for himself what he invariably advised to others in like conditions, namely, temperate, but substantial, generous living ; fresh air, and plenty of it, and in the house, as well as out of it, a cheerful and hopeful spirit, looking forward always to recovery, with healthy and steady occupation added.

As long ago as 1856 I was in feeble health. After two attacks of pleurisy, in the few previous years there was developed in my right lung what seemed to be a hereditary cough and other symptoms which are characteristic of consumption. I was obliged to abandon work, and was attended and prescribed for by two of the most eminent physicians of Philadelphia, the late Professor G. B. Wood and Dr. Gerhard. They diagnosed the beginning of consumption, and sent me South. I went to a pine district in Alabama, and returned in the following May, not much improved. Then they sent me across the sea, with letters to the two most eminent men in their day for the treatment of pulmonary disease, the late Dr. Stokes, of Dublin, and Dr. Walsh, of London. I saw them as soon as possible. One of them said : " Your right lung is of but little, if of any, use to you. If you return to America and follow your profession you can probably not survive more

than a year." The other said : " Young man, you have a poor chance without great care. Enjoy yourself here and on the Continent as much as you can, and stay as long as you can. Keep all your functions in good working order as far as you can. Carry a little bottle of pure glycerine in your pocket, and every time you cough take out the cork and sip a little of it, just enough to lubricate your mouth and throat."

I did so. Crossed St. Bernard Pass, in Switzerland, in the month of December, and in eleven months returned improved in health, and able to do a little guarded work. I am now in my seventy-second year of age, and not yet dead. Work has been my specific, and the amount of it from then till now has had no mean limit.

I thought you might be interested in these facts and experiences, which may serve to give support to what I take to be in a measure your own views.

Faithfully yours,

JOSEPH PARRISH.

V.

CLIMATE AND CONSUMPTION.

By due attention to the suggestions already made, nineteen cases out of twenty—perhaps a still larger proportion—that could be cured anywhere can be overcome where the person now lives, provided there are no conditions unfavorable in a marked degree to recovery peculiar to the house or immediate location.

When possible it is vastly better to fight the battle and win the victory on the ground to which the sufferer knows he must return. Removal from kindred and friends, sacrifice of property, influence, associations of all kinds, take away much of the value of life.

In cases extremely far gone—where it has been for a considerable time impossible to take the least degree of exercise—it is folly to go far from home. It may hasten death and often entails the neces-

sity of it under the most harrowing circumstances both to sufferers and their friends.

It is absurd to condemn or commend vast sections of the country by wholesale. Take New England as an example; it has a bad reputation for consumption, and yet there are many places in every State where it seldom occurs. Dr. Bowditch observes that "there are some places in New England which enjoy a very great freedom from the ravages of consumption, if not quite as much exemption as any portion of the globe can claim." On the other hand, the West India Islands have a high reputation for the mildness of the climate, yet Sir James Clark, in his work on *Climate*, showed that consumption was more frequent there than in England. A decided difference exists in certain regions relatively to the production of this disease; but before a person proposes to change climate he would do well to know

something about the State in which he lives, the county and even the town.

Regions where there is a great deal of moisture in the soil are unfavorable. Houses surrounded by shade-trees so that the sun seldom reaches them may produce consumption in any climate. Even in cities it depends much on where persons live. Houses in blocks, except at corners, of course, lose the sun on both sides, and in narrow streets much of it in front and rear. When in addition to that the house faces the north, and is shut off from the sun on the southern side by reason of the great elevation and proximity of the buildings in the rear, what is to be expected but that some of the members in such families will sooner or later succumb to wasting disease? Even such houses, owing to the superior draining of cities, have an advantage over many houses in country places unhygienically situated or shaded, so long as the patient can get out of

doors. For the same reason dwellings built on clay soil are liable to be damp, and also to induce malarious diseases. Some have accumulated statistics to prove that where malaria prevails consumption does not. But the person who would settle in a malarious region to escape consumption, or in a consumptive region to escape malaria, would not exercise sound judgment. Nor do such statistics prove what they are intended to prove.

Slight changes of a few miles, with proper regard to the new situation, will oftentimes do as much good as changes of hundreds or thousands. When the person has contracted the disease in a hilly country it may give him a new lease of life to remove to the sea-coast; and one who, living on the sea-coast, finds himself a victim of the disease, has the best reason for improvement by going inland. This is very important, especially to the poor and those in moderate circumstances, or whose situa-

tion does not admit of an entire renunciation of home associations and duties. Even a change to a different part of the same city will produce wonders. It would be safe to say that hundreds of families who were in failing health in South Brooklyn have greatly improved by going to higher parts of the city, though many of stronger constitution are not affected unfavorably in the former section.

Foreign travel of the modern American sort on ocean steamers that cross the Atlantic in six days, and then traveling from point to point sight-seeing, is not only not helpful to persons suffering from consumption, but almost certain to accelerate the progress of decay. Fortunately most physicians are awake to this fact, and very few comparatively who have lung disease are now sent abroad as general travelers. There are in Europe many places admirably adapted for a consumptive to spend several months, but none better than can

be found in the United States. Much may be said in favor of an ocean voyage on a sailing vessel. A real invalid should, however, not attempt such a thing alone; and it is doubtful if in any case a sick woman, unless the captain or some important officer of the vessel is a personal friend or relative, should go away from home alone under such circumstances.

The difficulty of deciding where to go is greatly increased by the fact that business interests are involved in booming all places alleged to be favorable to recovery from consumption. Physicians of note settle at such points, compile tables with consummate skill, and reason with marvelous plausibility, apparently demonstrating that no one ever did or could die of consumption there, unless he was in the last stages when he arrived. I have thirty or forty works each conclusively proving that the place it eulogizes is by far the best resort in the world. They not only seem to prove

it, but the descriptions in some of them exhibit more skill in composition than can be found in the works of successful novelists. Yet when one arrives at such a place it may be in a wilder storm or a more depressing atmosphere than he ever felt at home. To explain this a new distinction is brought forth, namely, that there is "a marked distinction between climate and *weather*," and "our climate is so good that precisely the same weather here is not half so harmful as the same kind would be elsewhere." There is something in this, but I have known persons to have to walk by faith and suffer much for four weeks before they saw a day half as pleasant as the average days of the winter in the home which they had left.

It should be understood that consumption operates very differently upon different persons. In some it is complicated with *catarrh*; in others, not; in some with *bronchitis*; in others, not. In some the *throat*

is affected ; in others, not. in some cases it is attended with much expectoration ; in others, with very little. In some with a hard cough ; in others, very slight, or even none. It is clear that a climate ought to be prescribed for individual cases. There are consumptives who would be as certain to die in Colorado as if a decree had been issued that they should be executed immediately on their arrival ; and the same is true of Minnesota, the Adirondacks, and Florida. Some who would die in any one of these places might be greatly helped or recover in one of the others. In considering any State or country it is as necessary to determine where to settle as it would be in the very State or country where the patient lives.

No fact is better established than that some climates especially favorable to consumptives exert a harmful influence over diseases of the nervous system ; and instances have occurred where persons who had

obtained great relief from the former malady became subject to those more intractable and dreadful. There are climates also in which, if a person recovers, he must pay the price of always remaining there. Even after a number of years' exemption from the symptoms a return of the disease is certain to follow a return to his former abode.

A consideration of great importance is that *without exercise* no climate will cure consumption. If a person proposes to go away from home to sit in parlors or on piazzas without any exercise the hope of recovery will prove but a pleasant delusion. The great advantage of most of the removals is that the climate admits of and prompts to exercise. This is the chief reason why Northerners often derive such extraordinary benefits from going South in February, March, and April. The weather being so stormy as to make it inexpedient to go out of doors at home, as they ride into a warmer climate where spring hastens

to meet them, almost imperceptibly to themselves they begin to ride, walk, and do many other things in addition to the breathing of out-door air much of the time. This gives them new hope, and as their exercise increases appetite and strengthens digestion they increase in weight and strength, and resume the battle of life with energy.

Turning from these general remarks, I will suppose the sick person to be a resident of some part of New England, the Middle States, Ohio, Illinois, Michigan, Wisconsin, or Canada, and that he proposes a *transient* change.

This will be made in the inclement season; for there is no reason for leaving any of these parts of the country during the late spring, summer, or early autumn, as during these periods he can have plenty of open air and exercise. Supposing, then, that as winter approaches, or at any time during the middle of winter, or toward the

close, as the more to be dreaded months of March and April approach, he wishes relief from the severity of the climate for a few weeks; where shall he go? Speaking generally, if he has a moist variety of consumption he should stay away from Florida. If heat enervates him, inducing languor, that is not the place for him. (Note that there are some parts of Florida that might benefit him, but Florida stands in popular estimate for a type of climate.) Such a person will find benefit by going at first to some point not farther south than Thomasville, Ga., and there remaining until the opening of March. When I say "to some point," etc., it is not to recommend Thomasville in preference to fifteen or twenty others in Georgia. It is a mistake to think because fashion has made a place popular, even though it have excellent merits, that there are not other places similarly situated equally as good. Many a struggling person could find excellent

board at six or eight dollars a week in towns in Georgia who will not go South at all because of the great rates charged in these local centers, where every man is taxed to pay for the luxuries required by some. About the first or middle of March let him move northward as far as Aiken. This is one of the most discussed places in the country and, take it all in all, one of the best, though the winds are often high and the rains sometimes terrific.

A return to the North should not be made before the middle of May, and prior to that time it becomes too hot at Aiken. It is well, therefore, to move into North Carolina or some point in Virginia, and there remain a week or two.

It is necessary on returning so to dress during May and so to guard against the chills that occasionally take place in June as to avoid evil effects. There are several points in North Carolina well adapted, notably Asheville, to those who can bear

some cold ; and all through that region are little mountain retreats to which the invalid not too weak, and who still retains self-regulating power, can go, and return with a new lease of life. I know consumptives in New Hampshire, Canada, and New York who have undoubtedly prolonged their lives a quarter of a century by these yearly visits, especially ladies who cannot take much exercise, but in the South have been able to be in the open air all through the spring.

San Antonio and Austin, Tex., are both good for such spring visits. I have never felt a more stimulating air than that of San Antonio. The effect of the climate in some parts of Florida is to make a person wish to avoid exercise ; to prefer riding in a carriage or sitting upon the piazza—an excellent thing for many cases. The air of San Antonio fills me with life ; I wish to be on horseback, to walk, or to move about constantly.

Others have found this quality injurious. I repeat that the places whose names are used are merely employed as indications.

In selecting a place even for a temporary residence, as far as possible, a uniform temperature, dry, not too cold nor too warm, with as few violent changes as possible, should be chosen.

What I have to suggest concerning selecting a region in which to spend one or more years in the hope of recovery or settling will be treated under a few grand divisions.

The climate of *Florida* as a whole is favorable to consumptives, and affords much greater variety than is generally supposed. For a long time persons were sent to that State without any discrimination, and many who needed a different climate died, and many more were sent home in a dying condition. The number of cases of consumption among permanent residents is very small. In 1880 in Florida, includ-

ing many persons from the North, only one inhabitant in one thousand four hundred and forty died of consumption. It is an immeasurably better climate than that of southern Italy. If points near the coast do not agree with the particular case the sufferer can try with more hope the central portion of the peninsula of Florida equally removed from both coasts, which is the best part of the State, for there the climate is moderately warm, dry, bracing, and equable. The great advantage is that in the central portion there are locations on an average of one hundred to one hundred and fifty feet above the sea-coast, which mean a great deal for the bracing character of an otherwise enervating air. There are only five or six rainy days in a month. The State is covered with pine forests, and there are high regions where the weather is sufficiently stimulating; new towns are springing up in different parts; all the comforts of life can be enjoyed

there. Northern institutions, Chautauquas, schools, colleges, cultivation of oranges, different kinds of business, afford society and occupation. I must, however, repeat the caution that there are parts of Florida which will not only not benefit, but will harm some sufferers from consumption.

Georgia, with great diversity of soil, has also a diversified climate. Northern Georgia consists of an upland region, cool and healthful in summer, occasionally very cold in winter. In all the pine land regions the air is wholesome. The lowlands are not to be recommended for a permanent residence. Thomasville has already been mentioned. Savannah is pleasant in the winter and spring. The prevalence of high winds in northern Georgia would be an objection to some. In 1880 in Georgia only one inhabitant in two thousand one hundred and fifty died of consumption.

Texas affords a boundless field from

which to select. It is subject to "Northers," and these tend to the production of pneumonia, but they clarify the atmosphere, and the inhabitants learn to guard against them. The dryness of the atmosphere in Texas is a point of the first importance; the absence of fogs and mists of all kinds makes the climate negatively as well as positively the best.

The more mountainous parts of South Carolina, indeed the whole upland regions of western North Carolina and eastern Tennessee, are exceptionally favorable for consumptives. I cannot believe, however, that the present tendency to send all classes to high altitudes in western North Carolina rests upon a perfectly sound hygienic basis. Consumption thoroughly pinches up some persons; they cannot endure the slightest degree of cold, and this is to be taken into the account. Others do not suffer from cold, but rather rejoice in it. All such can thrive at high altitudes and en-

dure such winters as there are in western South and North Carolina and eastern Tennessee with pleasure and decided benefit.

The *Adirondacks* were first brought to popular notice by a book written by the eccentric Murray. Crowds of consumptives poured in, overtaxed the accommodation, and returning, recorded their names upon the registers as "Murray's Fools." Mr. Murray is said to have remarked that "a higher power than he made them fools." Finally that region obtained a permanent and just reputation as one of the best resorts, winter and summer, for many cases of consumption. The atmosphere is so pure, the winter climate upon the whole so regular, and the recreative pursuits so stimulating, that hundreds have there regained their health.

Persons *far gone* in consumption should not go to *Colorado*. They may go to South Carolina or to California, or some parts of Florida, and live there for many years. In

the early stages of consumption *Colorado* affords an excellent prospect of recovery. Persons with profuse night-sweat, diarrhoea, great emaciation, large expectoration seldom recover in Colorado. The late Rev. William T. Egbert, formerly assistant rector of Grace Church in the city of New York, and ten of his friends, went to Colorado within the course of a year. He did not improve, nor did any of those ten, who all died in the State, or *en route* East. This is no reflection upon the climate. They were not in the stage of the disease suited to it. Persons who have had consumption for one or more years, but who are in fair condition, if they can get to Colorado and live two or three months, often recover and live many years. My old friend and fellow-student, Governor Pitkin, was a case of this class. Generally speaking, consumptives get along better in winter than in summer in Colorado.

New Mexico has recently attracted many,

and has secured the approbation of a convention of climatologists. All over that country are men whose cases were considered hopeless, but who by going there and entering upon an active life, often in connection with horseback riding and other travel, have become not only well, but physically very strong.

California has great range of latitude, nine and a half degrees. "Properly speaking, California has several climates, the basin of the Sacramento and San Joaquin valleys having one, the western slope and the Coast Range north of latitude thirty-five degrees another, and that portion of the State south of thirty-five degrees still another." No country in the world has such high average warmth in winter and such average coolness in the summer as that State. A difference of thirty miles will make a vast difference in the weather. Take San Francisco and San Jose as an example. San Diego, Santa Barbara, and

a number of other places have a just reputation as sanitariums. Like some places on the French and Italian Rivieras, Santa Barbara owes its advantages to its local situation. But even there the change of a mile makes the difference between healthfulness and unhealthfulness for consumptive cases. I have personally known a number to go there and die, and a large number equally sick, apparently, go there and live. Sometimes husband and wife, both afflicted with pulmonary disease, have settled in California, and one of them has died, while the other has progressively recovered.

In incipient stages of consumption *Minnesota* has long been recommended. It is very cold there in the winter, and the season is long. Yet the changes are not extreme. The air is bracing; but it is not favorable to advanced cases. Unless patients are able to bear the cold and to take bodily exercise they will fail. In my visits

to that State I have found numbers who have fought it out. Mr. Mendenhall, a banker of Minneapolis of many years ago, told me that he went there as an advanced case and found patients dying all around him; driven desperate, he spent seven months, day and night, in the open air, and believed he owed his recovery to that. An eminent authority says: "The cold, clear air of the State is undoubtedly beneficial to certain cases of consumption. None, however, should attempt the journey whose lungs are seriously diseased, or who have not the strength to take exercise out of doors. It is the open-air life that does the work, after all, of curing, and it is therefore little less than suicide for invalids to seek a home where they are compelled to shut themselves in-doors day after day." There are a hundred places in Minnesota that have all the advantages of any. The more sheltered the location is the better.

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So important is the subject, and so many are the interests involved, that it is difficult to decide at what point to close. The places mentioned, with the exception of New Mexico, I have visited. I would advise all those who intend to settle permanently to surround themselves so far as possible with the comforts of life, churches and schools, and if they can have some friends whom they knew before to go with them to settle in the neighborhood, so much the better.

VI.

HOW DR. BOWDITCH CURED HIM-
SELF OF CONSUMPTION.

THE following account, confirming the principles herein before set forth, is taken from *The Medical News*:

Dr. Henry J. Bowditch, of Boston, recently recited to the American Climatological Association a most instructive story of the way in which his father, when apparently far advanced in consumption, overcame it by open-air travel and exercise, and by a systematic training of his children in similar open-air habits of living overcame in them strong hereditary tendencies to the same disease.

According to the story, in 1808 the elder Bowditch had cough, spitting of blood, hectic fever, and great debility. In August of that year, though very ill, he started, with a friend as his companion and driver, in

an open one-horse chaise for a tour through New England. During the trip he traveled seven hundred and forty-eight miles and passed through one hundred and thirteen towns and cities, the time occupied being thirty days. The first day, after a drive of twenty-five miles, he was so much exhausted, and spat blood to such an extent, that the landlord of the hotel at which they put up advised his friend to take him back home to die. But the sick man was plucky; at the end of the next day's journey he felt somewhat better; he persevered in his journey, grew steadily better, and finally when he reached home again was in much better health than he had when starting. The journey, though benefiting him immensely, did not wholly cure, but it had proved to him the absolute need he had of regular daily physical open-air exercise. Afterward, under walks of one and a half to two miles, taken three times daily during thirty years of

life, all pulmonary troubles disappeared. He died in 1838 from carcinoma of the stomach, one lung presenting evidences of an ancient cicatrix at its apex, both being otherwise normal. He was sixty-five years old—that is, thirty years after the journey.

Having thus experienced, in his own case, the vast benefits resulting from constant, regular exercise out of doors, he apparently determined that his children should be early instructed in the same course. "As soon as we were old enough," says the younger Bowditch, "he required of us daily morning walks down to a certain well-known divine's meeting-house, about three-quarters of a mile, or a mile, from our home. I remember them very well for the tricks played with my brothers on our way down, and for sundry twinges of conscience, felt even at this moment, at the thought that we sometimes decided that the sight of the 'weather-cock on Dr. Bentley's steeple,' though seen more than a quarter

of a mile from our proper destination, was near enough to our father's directions!

"If any of us, while attending school, were observed to be drooping, or made the least pretense even to being not 'exactly well,' he took us from school, and very often sent us to the country to have farm-life and out of door 'play to our heart's content.' Once he told me to go and play, and to 'stay away from study as long as you choose.' In fact, he believed heartily in the old Roman maxim of 'a healthy mind in a healthy body.' In consequence of this early instruction, all of his descendants have become thoroughly impressed with the advantages of daily walking, of summer vacations in the country, and of camping out, etc., among the mountains. These habits have been transmitted, I think, to his grandchildren in a stronger form, if possible, than he himself had them. Such habits are among the surest guarantees against the prevalence of phthisis in

a family. Before detailing the actual result of these habits upon our family, I must state the prospective chances of our escape from the malady. My father married his cousin, who, after long invalidism, died of chronic phthisis in 1834. Certainly a consanguineous union of two consumptives foreboded nothing but evil. They had eight children. Two died, one at eleven and the other at birth. All the others either are now alive or they arrived at adult life and married and have had children and grandchildren, but not a trace of phthisis has appeared in any of these ninety-three persons."

Dr. Bowditch adds that for his part he fully believes "that many patients now die from want of this open-air treatment. For years," he says, "I have directed every phthisical patient to walk daily from three to six miles; never to stay all day at home unless a violent storm be raging. When they are in doubt about going out, owing

to 'bad weather,' I direct them to 'solve the doubt, not by staying in the house, but by going out.'

"A cloudy day, or a mild rain, or the coldest weather should not deter them. If the weather be very cold, let them put on respirators before leaving the house and be thoroughly wrapped in proper clothing for the season. I direct them never to stand still and gossip with friends in the open street, as by so doing they are much more liable to get a chill than while walking. Hence, summer and winter alike, my patients usually get plenty of fresh air, uncontaminated in a great part, at least, by the previous breathing of it by themselves or by other occupants of the house. This course, I believe, might be pursued in any part of our common country. I am certain that I know of patients who have become well and able to attend to the business of life under this course. May we not also at times send our patients over

short distances in open vehicles, instead of thousands of miles off in ill-ventilated cars to an entirely different climate? Have any of us ever sufficiently tried this open-air journeying at home, so to speak—that is, in the region of the country where the patient lives, wherever that may be?"



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